* 532 171 day, in many cave paintings the motifs and styles are different from those now in use.

(iii) FIGURES CARVED IN WOOD OR MOULDED IN WAX

Although carving in the round extends far beyond Arnhem Land,[36] it appears to have reached its highest development in the north-eastern area. The aborigines in and around Yirrkalla also make excellent models in wax. The tribes of Cape York[37] are expert in the same technique.

(iv) FIGURES MOULDED OR DRAWN IN WET SEA-SAND

[857] The aboriginal children of north-eastern Arnhem Land are skilled in both drawing and moulding various creatures in the wet sand of the seashore.[38] As the children of Central Australia also draw designs on the sides of drifting sand-hills, it is almost certain that this practice has a much wider distribution than present evidence indicates.

(v) FIGURES IN BARK

The aborigines of north-eastern Arnhem Land make small human figures by binding the soft paper-bark together with string. Worms[39] records similar figures from north-western Australia.

I. TECHNIQUES

• 386 The materials used in the production of the bark and cave paintings are: (i) Colours: red, yellow, black and white ochres; (ii) fixative; (iii) brushes; (iv) flat, dried sheets of bark.

(i) COLOURS

The pigments used to paint the designs on the bark sheets, or on the cave walls, were red, yellow, black and white. Although I did not specifically ask the name of the colours at Groote Eylandt, Tindale[40] gives the names of those employed there as white, *tonguru*; yellow, *otarnk*; black, *udumach*; and red, *maru-wuna*. The red was traded from the mainland to Groote Eylandt, the other colours being obtained locally. Rose[41] also refers to trade in red ochre with the mainland tribes. Since the war, the Groote Eylandters have learned that carbon from dry batteries discarded by the Air Force makes an excellent black. This was used extensively both on the bark paintings collected by the expedition and those described by Adam.[42]

At Yirrkalla, the aborigines used four pigments, red, white, yellow and black. The first two belong to the *dua* and the latter to the *jiritja* moiety. Red, *murn-gun*, and white, *kapun*, are plentiful in the cliffs at Yirrkalla. It can, however,

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36. Mountford (1954), p. 87, Pl. 1. 37. McConnel (1935), Pl. 27, Fig. 1.
38. Barrett and Cudl (1913), Pl. 11, facing p. 70. 39. Worms (1912), Fig. 6.
40. Tindale (1925a), p. 116. 41. Rose (1942), p. 70. 42. Adam (1951), p. 109.

be gathered only by the *dua* men who give it to those of the opposite moiety. Yellow, *kadangul*, and black, *tjunapul*, come from localities near Gurunga.[43] The collection of the yellow pigments is associated with a ceremony in which men of the *jiritja* moiety only can take part. The *jiritja* distribute these pigments to the *dua* men.

At Oenpelli, most of the colours are obtained by trade. The best red ochre, *gunaitdai*, comes from a totemic place, Widitjan, about eight days journey south. If this ochre is in short supply, the aborigines use an inferior local ochre. For white, the aborigines use a stone, *outjain* (unidentified), which they first grind into a paste and, when it is partly dry, mould into small cakes. In this form, the pigment is traded over long distances. The yellow ochre, *maragararum*, which is soft and easily ground, comes from some unidentified place to the far south. I did not gather any details about the source of the black, called *mammi-jangarin*. Apparently it is in short supply because it is rare in both the bark and cave paintings in the Oenpelli area.

Throughout Arnhem Land the pigments are ground, with water, on rough flat stones. One stone is generally reserved for the white pigment. Cockle and small bailer shells are often used as paint pots. Both Tindale[44] and Spencer[45] state that the aborigines mix their pigments to get different shades. At the time of my visit to Groote Eylandt, Yirrkalla and Oenpelli the aborigines were not mixing their colours, the different pebbles of red and yellow ochres accounting for the varying shades of red and yellow in the paintings.

(ii) FIXATIVE

The juice of one of the tree orchids (*Dendrobium* sp.) is used by the Arnhem landers as a fixative on both the bark and the cave paintings. The orchid bulb is cut in halves, broken slightly by chewing, and, in the Oenpelli and Yirrkalla areas, rubbed directly on the bark or rock surface, or in Groote Eylandt, mixed with the colour on the grinding stone. This method of holding the colour is effective as long as the pigments are applied thinly; if not, they tend to flake off.

(iii) BRUSHES

The aboriginal artists of Arnhem Land use three kinds of brushes:

(a) A narrow strip of bark, chewed at one end (Fig. 3F). This is held as in Fig. 3C and used for the broad lines.

(b) A cylindrical stick (Fig. 3E), about three thirty-seconds of an inch in diameter, and three inches long, which has the end slightly burred. With this the artist makes the dots. The brush is tapped on the grinding stone to load it with colour, which is transferred to the painting with the brush held as shown in Fig. 3B.

43. See myth of Gurunga, p. 371.
44. Tindale (1928), p. 117.
45. Spencer (1928), p. 792.

6: Berndt E-5 (1946-1947) 1951
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right down. The girl's legs are tied to the posts, so that her legs are outstretched between them. (We know of no other reference to the actual tying down of the Kunapipi girl who has been chosen for ceremonial coitus. As a young girl is specified, this probably refers to ritual defloration which has been mentioned briefly elsewhere—*vide* Chapters IV, V and X. It suggests also that force is used to hold the girl, a feature which should not normally accompany this rite; moreover, promiscuity is such a feature of this area, with the breaking down of indigenous regulations governing sexual conduct, that one would not expect it to be necessary.)

The men then paint themselves, and line up for dancing. There may be two or three hundred men on the sacred ground. The headman begins to beat his clapping sticks, while the dancing men clap their hands rhythmically to the music and song, and call out intermittently. Then the first man, at the head of the long line of dancing men, leaves the line and goes into the shade and copulates with the Kunapipi girl; the other men continue clapping their hands and calling out.

Under the girl, immediately beneath her vulva, a small depression has been dug and in it has been placed a shallow paperbark dish; this catches the semen and vaginal juices that come out of the girl.

When the first man has left the hut, another takes his place; this is continued until all the men in the line have entered the hut and copulated, and their semen has flowed from the girl into the paperbark container.

By this time, the container is full; and after a rest, the men remove it from the hut and begin to paint themselves with the semen; then they continue their dancing, which goes on from early morning until sunset. Ceremonial coitus takes place each day for several weeks, different girls being chosen for each ceremony." Other rituals relating to the Kunapipi are also performed in a sequence similar to that already discussed.

It should be mentioned that the reason given for thus decorating the postulants' bodies with designs in semen and vaginal juices is the belief in the fructifying potency of the former. The act of ceremonial coitus is itself symbolic of fertilization, and the subsequent increase of human and the natural species; semen is the essence which causes pregnancy; and this natural and logical belief is an integral part of the rituals of the Kunapipi fertility cult.

There is also an association between semen and the saliva of the Julunggul Snake (*vide* Chapter III, *et seq.*); it was with this substance that Julunggul smeared the Wauwalak and the child prior to swallowing. This "saliva" is represented by white pipe-clay in parts of the Kunapipi, and it is with this that Kunapipi neophytes are painted.

of special types and very local in occurrence, come to be distributed throughout the whole of this great territory? And how, again, are pigments and ochre—*miko*, (red), *butälläk*, (yellow), and *raitpa*, a reddish-purple pigment with a metallic sheen which is used especially for ceremonial purposes—which occur in deposits localised in certain clan territories, distributed throughout the whole area? Why are these pigments and other materials not guarded as jealously as the patterns in polychrome and retained in one area instead of being so widely dispersed?

Each individual in Arnhem Land is the centre of a great ceremonial exchange cycle. A man calls the people of all those groups to the east and north-east of himself, naming them from the class of *gerri* which characterise them, *kumur miwait*; those to the north *kumur muadäk* (*muadäk*, the generic name for all calico or fabric), to the south-west and south, *kumur kärin* (inside), to the west and north-west, *kumur kätjirk*, and those to the south-east and east, *kumur djalk* (paperbark sheath used for *ŋämbi lirra*—literally the "tooth" or head).

Kumur is really the breastbone or sternum, but a hill is also *kumur* or *buku*, and *kumur* is used again to denote direction, aspect, and hence, the quarters within the ceremonial exchange cycle. Each individual within this great cycle has friends of a type called *kumuryanna märnda*, really "breast to breast those two". This expression is used of friends who are partners, who stand opposite one another and exchange gifts or *gerri* within the exchange system, and between whom is carried out a life-long system of ceremonial exchange. These relationships, which go by the general title of *kumur märnda*, are sometimes very complex, sometimes simple. Certain types of gifts characterise each of the groups (and indeed in at least two

15:Chaseling M-5 (ca. 1934-1936)1957
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cattle to Yirrkala it was not long before their likeness too appeared on bark sheets.

I saw little-known caves on the Wessel Islands, in which totemic myths had been painted side by side with Japanese pearlers, Macassar proas, and odd European wanderers. Rock paintings are common in many parts of Australia, except in Arnhem Land where outcrops of rock are so rare that only three lots of rock paintings have been found. Here the primitive artist uses a bark sheet, which in itself indicates some measure of aesthetic impulse, for it is not easily obtained and has no permanence.

The Serpent in sacred myths is spiritually present in the 'maraian' or log painted with totemic symbols. For ceremonies, the maraian is kept in a bush shelter deep in the scrub, and initiated men guard it till the moment arrives for its dramatic elevation. They push their way through the shelter toward the over-awed initiates, and grovel, shudder, squirm, and roll over and over with strained and contorted faces, as if overcome by dread of the long maraian so carefully borne across their bodies. Wriggling along in the rear, the leader of the ceremony blows through the maraian and produces the low booming sound so feared by women and children and believed to be the voice of the Serpent.

Designs on maraian are made from coloured clays, string, and feathers. Hundreds of yards of string are wound on some of them, and the effect is enhanced by weaving into it white birds'-down, red and green parrots' feathers, or opossum fur. Red ochre-stone from a totem centre on Elcho Island is traded for hundreds of miles, and is in demand because of a greasy property which makes it adhere to the skin. Ordinary clay-paints crack and peel, but this is overcome by crushing orchid stems and smearing the sticky juice over the body before applying the paint. Participants in ceremonies decorate themselves with totemic designs, and glue long lines of white birds'-down on their

15:Chaseling M-5 (ca. 1934-1936)1957
OI17 Murngin OI17

bodies. This glue is obtained by cutting a vein in the arm, painting the blood on the skin and adding feathers before it congeals. Paint brushes are made from human hair or from twigs.

I remember watching Wonggu mix his colours in shells, flatten his bark, and prepare his orchid gum. Only then did he realize that he needed a brush, so he leaned over and cut a tuft of hair from his son's head, bound it to a twig and commenced his mural.

A well-known anthropologist stayed with us at Yirrkala and obtained a big selection of aboriginal arts and crafts and bark paintings. He paid the Yulengor well, and they gave full play to their ingenuity, manufacturing such things as bows and arrows which, incidentally, are not used by aborigines. I saw several paintings in the collection in the usual red, yellow, white, and black, together with an additional vivid blue. Not having seen blue before, I could not account for it till later in the day my wife chanced to remark that several of her blue-bags had disappeared.

Body decorations are made by mutilating the skin, and one pleasing mutilation resembles a string of beads on a woman's breast, where each bead is a raised nodule of flesh about the size of a pea. Women and girls sear a pattern on the skin with firesticks, and rub pipeclay into the wound; a more common practice is to cut the marks into the flesh before filling them with clay. For reasons of vanity and custom, a woman has a few cicatrices across her hips, and possibly on her shoulders, and in the event of sorrow she adds some to her midriff. If a brother should die, a sister paints horizontal lines across the backs of her legs below the knees, and when his bones are being collected she substitutes gashes for her clay markings.

It was explained that a man gets a friend to cut the customary perpendicular lines from his shoulder and halfway to his elbow, but he himself makes the more important